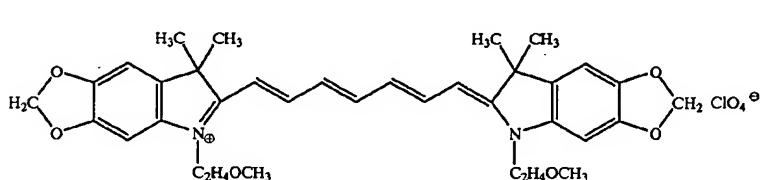


49

g of the compound (1). In a light microscopic examination of the sample after completion of the irradiation, no through hole formation was observed even when the laser power arriving at the surface was 100 mW.

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an alkoxyalkyl group containing, as a whole, 2 to 8 carbon atoms, a sulfoalkyl group containing 1 to 8 carbon atoms or a carboxyalkyl group containing, as a whole, 2 to 9 carbon atoms.



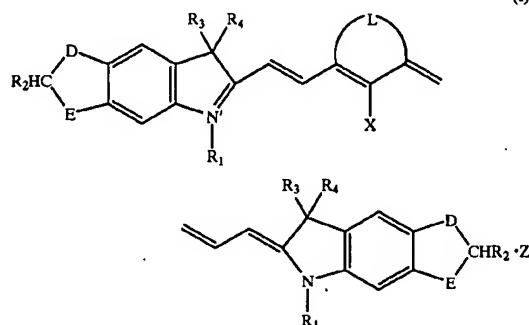
Compound B

EFFECTS OF THE INVENTION

The polymethine compound of general formula (I) shows less absorption in the visible region, and the near infrared absorber comprising this compound can be used with advantage in laser thermal transfer recording materials and laser heat-sensitive recording materials having good sensitivity to laser light with a high light-to-heat conversion efficiency and, therefore, enabling high-speed recording. The polymethine compound of general formula (I) is very highly soluble in various solvents used for making the light-to-heat conversion layer of starting plates for direct printing plate making and has good compatibility with various binder resins and other components, facilitating preparation of coating compositions. It can thus form uniform light-to-heat conversion layers and is particularly suited for use in the manufacture of starting plates for direct printing plate making.

What is claimed is:

1. A polymethine compound which has the following general formula:



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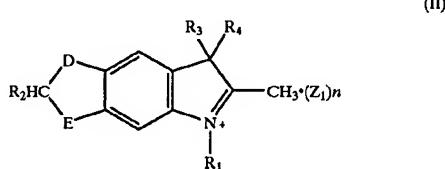
(I)

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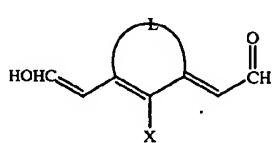
50

wherein R₁ represents an alkyl group, which may optionally be substituted, R₂ represents a hydrogen atom or a lower alkyl group, R₃ and R₄ each independently represents a lower alkyl group or R₃ and R₄ may combinedly form a cyclic structure, D and E each independently represents an oxygen atom or a methylene group, Z₁ represents a charge-neutralizing ion and n represents an integer of 0 or 1, and a diformyl compound represented by the general formula (III):



(II)

wherein R₁ represents an alkyl group, which may optionally be substituted, R₂ represents a hydrogen atom or a lower alkyl group, R₃ and R₄ each independently represents a lower alkyl group or R₃ and R₄ may combinedly form a cyclic structure, D and E each independently represents an oxygen atom or a methylene group, Z₁ represents a charge-neutralizing ion and n represents an integer of 0 or 1, and a diformyl compound represented by the general formula (III):

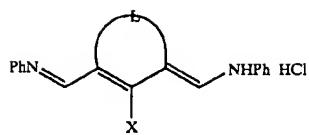


(III)

2. A polymethine compound as claimed in claim 1, wherein R₁ is an alkyl group containing 1 to 8 carbon atoms,

wherein X represents a hydrogen or halogen atom or a substituted amino group and L is an alkylene group which is required for the formation of a cyclic structure and may optionally be substituted, one or more carbon atoms of which cyclic structure may be replaced by some other atom(s) or atomic group(s), or a dianil compound represented by the general formula (IV):

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wherein X represents a hydrogen or halogen atom or a substituted amino group and L is an alkylene group which is required for the formation of a cyclic structure and may optionally be substituted, one or more carbon atoms of which cyclic structure may be replaced by some other

(IV)

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atom(s) or atomic group(s), to condensation reaction in the presence of a fatty acid salt and a dehydrating organic acid.

8. A near infrared absorber which comprises the polymethine compound of claim 1.

9. An original plate for direct plating for printing comprising a light-to-heat conversion layer formed on a substrate, characterized in that said light-to-heat conversion layer contains the polymethine compound of claim 1.

10. A method of making a printing plate which comprises irradiating the original plate for direct plating of claim 9 with a laser beam from a light source laser which has a light emission wavelength region within the range of 750 nm to 900 nm.

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